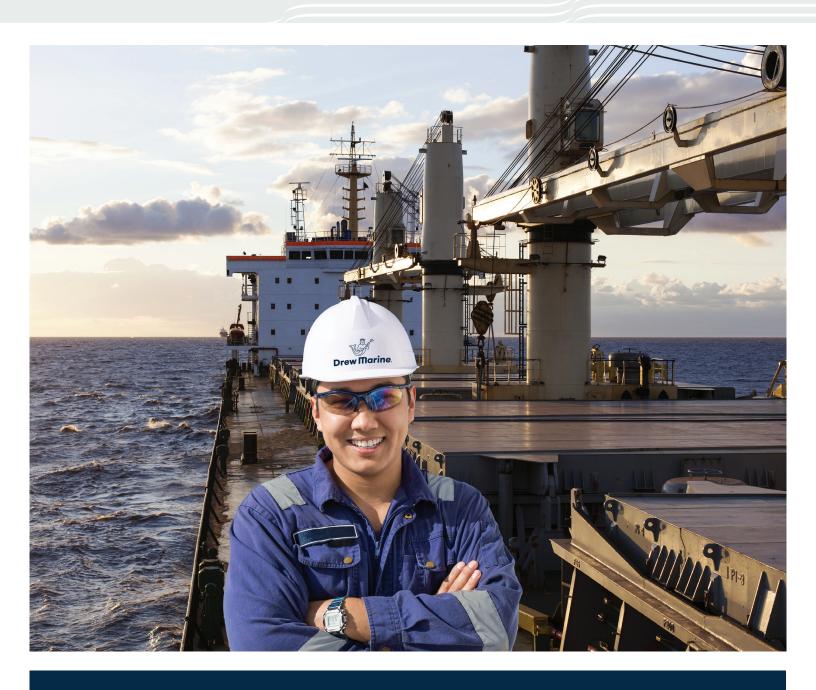


# Solutions for Cargo Hold Cleaning



Products Designed for Bulkers

# Discover the Right Solutions with Drew Marine

### Clean to a higher standard with increased efficiency

Maintaining cargo hold cleanliness is crucial for vessel upkeep and for preserving the quality of your customers' goods. Failure to properly maintain these areas poses risks such as cargo cross-contamination, costly survey failures, certificate delays, and even port state penalties. Additionally, the idle time caused by a dirty vessel translates into financial losses.

At Drew Marine, we understand these challenges and have developed innovative cleaning solutions specifically for today's bulkers. For almost a century, we have been supplying our specialty cleaning chemicals to the marine industry. Our specialty cargo hold cleaning chemicals are research-driven formulas designed to offer you time savings. Our technologically superior specialty chemicals meet today's regulatory requirements and deliver excellent cleaning results. Our specialty cleaning chemicals are designed with mariners in mind, offering time savings, expedited ship turnarounds, and peace of mind.

If you do not already know Drew Marine, you can find us in your engine room. We've been supporting shipboard applications for nearly a century. Our service engineers visit your vessels and partner with your Chief Engineer and the engine department to keep engines, boilers, and related systems working at peak efficiency. We assist in performance monitoring, treatment

application, and troubleshooting problems. Drew Marine is much more than just a chemical supplier and partner to the Engine Department. With a comprehensive range of equipment, chemicals, and expert technical support, Drew Marine is well-equipped to handle your toughest cargo hold cleaning and maintenance challenges, enabling your vessel to clean holds faster and more efficiently.

Our team at Drew Marine includes experienced maritime professionals who understand the specific needs of cargo hold cleaning. We leverage advanced technologies and industry expertise to provide customized solutions that optimize cleanliness, minimize downtime, and enhance operational efficiency.

Cargo hold cleaning is a dangerous and difficult operation. The pressure on the crew to clean properly, quickly, and safely is tremendous. Choosing Drew Marine means you have a steadfast partner who can supply the right products to get your cleaning done faster while meeting your cleaning inspection standards the first time.

Our unwavering commitment to excellence and innovative solutions will ensure that your cargo holds are maintained to your highest standards, enabling smooth operations and the preservation of cargo quality.







## **The Right Time-Savers**

Strict cleaning standards like hospital clean or grain clean demand the holds to be completely clean and free of foreign particles including loose paint, scale, rust, and any residue of previous cargo. Drew Marine offers the right products to reduce cleaning time and labor.

#### **Cleaning Chemicals**

Our HOLDBRITE series of cleaning chemicals, like our newest HOLDBRITE PRO HD for the dirtiest green delayed pet coke, are available in key ports to support your cleaning chemical needs.

#### **Cleaning Machines**

Our DREWJET series of high-pressure cleaning machines effortlessly ensure optimal surface cleanliness, preparing cargo hold surfaces with ease.

#### **Protective Solutions**

Our AMEROID RSR has long been used on deck to improve de-rusting and passivation on tank-top areas. Our temporary protective coating, HOLDBRITE HOLD BARRIER XR, efficiently protects surfaces against corrosive cargoes and cargo penetration.

#### **Application Sets**

Our low-pressure cargo hold chemical application sets are the ideal solution to apply cleaning chemicals and temporary coatings especially on hard-to-reach areas of the cargo hold. The applicators are durable, telescopic, have a long reach, and are compatible with a wide range of chemicals including acidic and alkaline formulations.



Rely on Drew Marine for innovative solutions that optimize the time and cost related to cargo hold cleaning.





## **The Right Chemicals**

## Introducing our HOLDBRITE Suite of Cargo Hold Cleaning and Coating Chemicals



Drew Marine brings you a variety of formulated, water-soluble chemical products – specifically designed to provide quick, high-performance in low concentrations, while protecting your crew, the cargo, and the environment.

#### **HOLDBRITE XF**

Our legacy cargo hold cleaner. A heavy-duty multi-purpose alkaline cleaner known for its effectiveness against coal and greasy residues. Suitable for a wide variety of bulk cargo residues.

#### **HOLDBRITE PRO HD**

Our newest, innovative alkaline cleaner. Our most powerful, highly concentrated cargo hold cleaner designed specifically to remove green delayed pet coke and similarly difficult cargoes with tenacious, staining oily residues without the use of sodium hypochlorite. Highly concentrated and lower usage rate than standard alkaline cleaners.

#### **HOLDBRITE MURIMAX**

A muriatic acidic based solution used for cleaning cement/cement clinker, bauxite, iron ore, & limewash cargo residues from the cargo hold and surrounding areas.

#### HOLDBRITE HOLD BARRIER XR

An innovative, temporary protective coating solution to protect the cargo holds against corrosive cargoes, or to optimize usage of detergent chemistry.

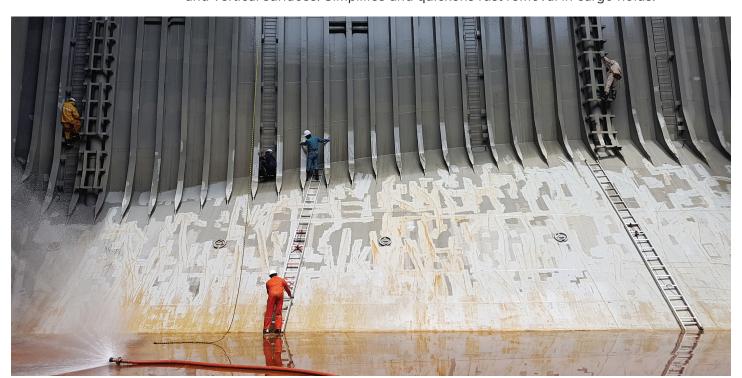
#### HOLDBRITE HYPOCHLOR

A strong sodium hypochlorite-based bleaching solution sometimes used to remove tenacious residues or stains caused by pet coke or coal on cargo hold surfaces. Offered where an alkaline cleaner is not your preference, and you are able to send your wash water ashore to reception facilities. Sodium hypochlorite is labeled a marine pollutant, and all discharges from cargo hold cleaning operations must be in accordance with the latest amendments to MARPOL Annex V.

#### AND OUR LEGACY RUST AND RUST STAIN REMOVER:

#### **AMEROID RSR**

Our leading rust and rust stain remover with a long and proven track record. A heavy-duty acidic solution that removes rust and passivates steel surfaces. Ideal for tank tops and vertical surfaces. Simplifies and quickens rust removal in cargo holds.



## The Right Equipment

## CARGO HOLD APPLICATION SET L

The ideal equipment for applying temporary protective coatings and chemical cleaners on cargo hold surfaces. Delivered in conjunction with a 1" diaphragm pump and suction/delivery hoses. Used with one of two telescopic lances: 42 and 57ft (ordered separately). All components are compatible with a wide range of chemical products.

#### **DREWJET 500 III**

The flagship of the DREWJET series. A powerful high pressure washing machine. Versatile for maintenance cleaning, removal of loose paint and rust, and hydroblasting resistant, tenacious cargo residues. Highly recommended for solidified cement residue removal. Rugged and suitable for the difficult marine environment.

#### **DREWJET 250 II**

Flexible and effective for high pressure washing up to 250bar. Suitable for maintenance cleaning in the cargo holds, deck, and engine room areas.

## HYDROJET HOLD CLEANING GUN

Fire hydrant compatible equipment coupled with compressed air enables this hold cleaning gun to rinse surfaces with 7bar of pressure up to a 40m reach. Effective, versatile, and designed with a tripod and platform that facilitates use by one operator.



CARGO HOLD APPLICATION SET L PCN 0160135

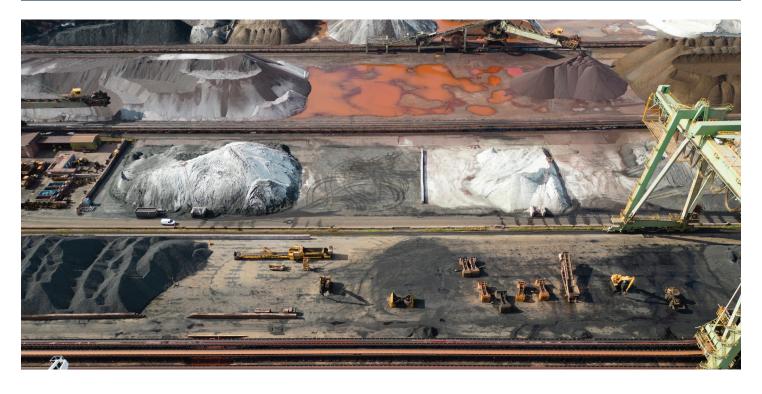






Bulk Cargo	Other Names	Recommended Cleaner	IMSBC Code / Clean-Up Notes
Aluminum smelting by-products	Aluminum dross, aluminum salt slags, aluminum skimmings, spent cathodes, spent potliner	N/A	Water shall not be used for cleaning because of danger of gas.
Ammonium nitrates	Ammonium nitrate based fernitric acid ammonium salt	Water	Check bilge wells and scuppers to remove any residue blockage.
Ammonium sulfate	Ammonium sulphate, diammonium sulfate, sulfuric acid, sulfuric acid diammonium salt	Water	Except in cases where the same cargo is to be loaded, cargo spaces shall be thoroughly cleaned/washed out to remove all traces of cargo, and then dried.
Anthracite	Anthracite coal, hard coal	HOLDBRITE PRO HD or HOLDBRITE XF	Check bilge wells and scuppers to remove any residue blockage.
Barium nitrate	Barium dinitrate, barium salt of nitric acid	Water	No special requirements.
Bauxite		HOLDBRITE MURIMAX	No special requirements.
Bituminous coal	Coal	HOLDBRITE PRO HD or HOLDBRITE XF	Check bilge wells and scuppers to remove any residue blockage.
Brown coal briquettes	Lignite, brown coal briquettes	HOLDBRITE PRO HD or HOLDBRITE XF	Check bilge wells and scuppers to remove any residue blockage.
Calcined petroleum coke	Pet coke	HOLDBRITE PRO HD	No special requirements.
Castor beans	Castor meal, castor pomace, castor flake	HOLDBRITE XF	After discharge, the cargo spaces shall be thoroughly cleaned and washed to remove all traces of cargo.
Cement/ Cement clinkers		HOLDBRITE MURIMAX	Thoroughly sweep prior to washing holds. Pay attention two bilge wells and framework. Fixed bilge pumps should not be used to pump cargo spaces because cargo may make bilge systems inoperable.
Chromite ore	Chrome ore	HOLDBRITE XF	No special requirements.
Clay	China clay, Kaolin	HOLDBRITE XF	Prior to washing out the residues, the bilge wells shall be cleaned.
Coke		HOLDBRITE PRO HD or HOLDBRITE XF	Check bilge wells and scuppers to remove any residue blockage.
Copra dry		HOLDBRITE XF	No special requirements.
Diammonium phospate	Diammonium hydrogen phosphate, DAP, phosphoric acid diammonium salt	Water	After discharge, particular attention shall be made to bilge wells of cargo spaces.
Dolomite		HOLDBRITE MURIMAX	No special requirements.

Bulk Cargo	Other Names	Recommended Cleaner	IMSBC Code / Clean-Up Notes
Fish meal		HOLDBRITE XF	No special requirements.
Fluorspar	Fluorite, calcium flouride	HOLDBRITE XF	No special requirements.
Fly ash		HOLDBRITE XF	Thoroughly sweep prior to washing holds. Pay attention to bilge wells and framework.
Granulated slag		HOLDBRITE MURIMAX	No special requirements.
Green delayed petroleum coke	Green delayed petcoke, green coke, raw coke, sponge coke	HOLDBRITE PRO HD	
Gypsum	Hydrated calcium sulphate, calcium sulfate dihydrate, gypsum stone	HOLDBRITE MURIMAX	Prior to washing out residues, decks and cargo spaces shall be shovelled and swept clean; washing out cargo is difficult.
Hot Briquetted iron	DRI, Direct Reduced Iron, HBI	HOLDBRITE MURIMAX	Hosing with seawater should be avoided.
Iron ore / pellets		HOLDBRITE MURIMAX	No special requirements.
Limestone	Calcium carbonate	HOLDBRITE MURIMAX	No special requirements.
Limewash		HOLDBRITE MURIMAX	
Manganese ore		HOLDBRITE XF	No special requirements.



Bulk Cargo	Other Names	Recommended Cleaner	IMSBC Code / Clean-Up Notes
Magnesia (deadburned)	Magnesium oxide, magnesite deadburned	HOLDBRITE MURIMAX	No special requirements.
Magnetite	Iron black	HOLDBRITE XF	Not addressed.
Met coke	Metallurigcal coke	HOLDBRITE PRO HD or HOLDBRITE XF	Not addressed.
Millscale - iron ore		HOLDBRITE MURIMAX	Not addressed.
Monoammonium phosphate	MAP, ammonium dihydrogen phospate, ADP	Water	After discharge, particular attention shall be paid to the cargo space bilge wells
Peat moss		HOLDBRITE XF	No special requirements.
Pencil pitch	Coal tar pitch prill	HOLDBRITE PRO HD	No special requirements.
Petroleum coke	Pet coke, calcined pet coke	HOLDBRITE PRO HD	No special requirements.
Phoshate rock	Phosphate rock calcined, phosphate rock uncalcined	HOLDBRITE XF	No special requirements.
Pig iron		HOLDBRITE MURIMAX	Prior to washing out resides of this cargo, the bilge wells of the cargo spaces shall be cleaned.



Bulk Cargo	Other Names	Recommended Cleaner	IMSBC Code / Clean-Up Notes
Potash	Potassium carbonate, carbonate of potash, pearl ash	Water	Mildly corrosive cargo. After discharge, the cargo spaces and bilge wells shall be thoroughly swept clean and washed to remove all traces of cargo.
Potassium chloride	Muriate of potash, potash muriate, potassium monochloride, Sylvite	Water	After discharge of this cargo, the cargo spaces and the bilge wells shall be swept clean and thoroughly washed out.
Pyrite	Iron disulfide, iron pyrite	HOLDBRITE XF	No special requirements.
Quartzite		HOLDBRITE XF	No special requirements.
Safflower seed	Seed cake	HOLDBRITE XF	No special requirements.
Salt	Sodium chloride, salt rock	Water	No special requirements.
Seed cake	Various names	HOLDBRITE XF	No special requirements.
Soda ash	Sodium carbonate, soda, disodiumcarbonate	Water	After discharge, cargo spaces to be swept clean.
Soya beans	Soya, soy beans, seed cake	HOLDBRITE XF	No special requirements.
Sulphur	Formed, solid	Water	Wear proper personal protective equipment. Holds shall be washed using only fresh water following discharge.
Sulphur UN 1350	Crushed lump and coarse grained (note: Fine grained or flowers of sulphur, shall not be carried in bulk)	Water	Cargo spaces/structures shall not be swept. Wash only with fresh water to remove all residues. Spaces must be thoroughly dried. Wet dust may form highly corrosive, dangerous sulphurous acid. Wear proper personal protective equipment.
Sunflower seed	Seed cake	HOLDBRITE XF	No special requirements.
Superphosphate	Triple superphosphate, granular supersphosphate	Water	After discharge, particular attention shall be paid to the cargo space bilge wells.
Talc	Hydrated magnesium silicate	HOLDBRITE XF	No special requirements.
Urea	Carbamide	Water	After discharge, cargo spaces shall be swept, washed out and dried.
Vanadium ore		HOLDBRITE XF	No special requirements.
Wheat		HOLDBRITE XF	
Zinc ashes		N/A	Sweep twice. Water shall not be used for washing because of danger of gas.

## **The Right Portfolio**

Drew Marine is your reliable source for cargo hold cleaning solutions. For more information, contact your Drew Marine representative today.



Cargo Hold Chemicals	Description	PCN
HOLDBRITE XF	Multipurpose, high foaming, alkaline product for carbon-like cargoes such as pet coke and coal.	9100421
HOLDBRITE PRO HD	Heavy duty, alkaline cleaner designed especially for green delayed pet coke. Can be used to clean other very dirty carbon-based cargoes such as coal.	9101429
HOLDBRITE MURIMAX	Heavy duty, acidic cleaner for cement, cement clinker, lime, limewash, bauxite, and iron ore residue cleaning.	9102427
HOLDBRITE HYPOCHLOR	A solution of sodium hypochlorite with assured global consistency.	9103425
And our legacy rust and rust stain remover:  AMEROID RSR	Heavy duty, acidic rust and rust stain remover for de-rusting and passivation on the cargo hold surfaces.	0091421
Temporary Protective Coatings	Description	PCN
HOLDBRITE HOLD BARRIER XR	Special temporary protective coating with extra resistance for corrosive cargoes like salt and sulfur or difficult to remove cargoes like green delayed pet coke.	9104423
Cleaning Equipment	Description	PCN
CARGO HOLD APPLICATION SET L	1 Inch chemical resistant diaphragm pump set with accessories. Used in conjunction with one of our lances to apply chemicals and coatings.	0160135
APPLICATION LANCE 57	High Range telescopic chemical application lance with a long reach - Up to 57ft- used to apply chemicals and coatings.	0160109
APPLICATION LANCE 42	Medium Range telescopic chemical application lance - Up to 42ft – used to apply chemicals and coatings.	0160108
DREWJET 500 III	Hydro blasting, de-rusting, scale removal, maintenance cleaning, cargo hold spot cleaning.	9803017
DREWJET 250 II	Maintenance cleaning, cargo hold spot cleaning, engine room cleaning.	9801011
HYDROJET HOLD CLEANING GUN	Cleaning gun with long reach for surface rinsing using the fire hydrant system.	0160118

## The Right Support

For nearly a century, Drew Marine has been dedicated to delivering peace of mind to our valued customers. You can count on total support from us as your partner. From

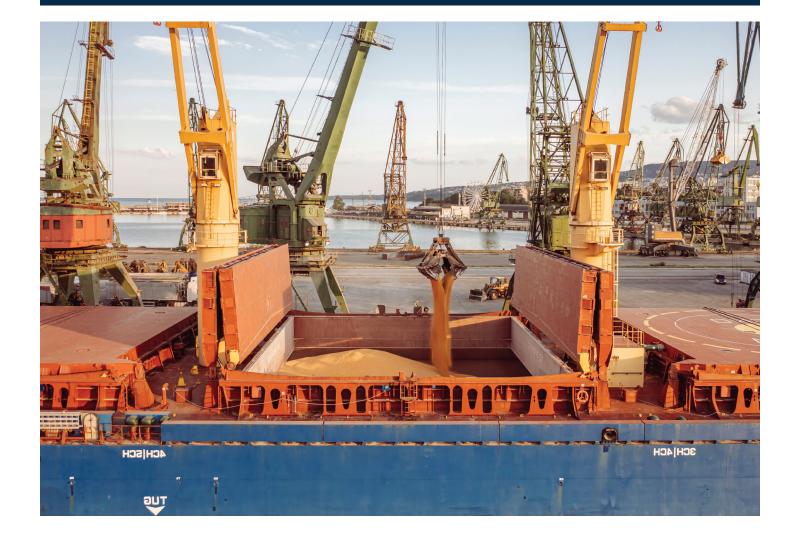
the creation of specially formulated MARPOL Annex V compliant cleaners, to onboard assistance from expert maritime professionals, like our Technical Service Team, to a world class global logistics network, Drew Marine supports our business partners like nobody else in the industry.



1000+
Ports Serviced Worldwide

67
Global Warehouses

Production Facilities



#### **OUR VISION**

Drew Marine is the most trusted brand and preferred global resource for marine solutions that enhance the longevity and operating efficiency of ocean vessels.

#### **OUR MISSION**

To sustain the superiority of the Drew Marine brand by bringing environmentally and technologically superior products and services for the benefit of vessel owners and operators while increasing shareholder value.



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